

US EPA ARCHIVE DOCUMENT

**State Innovation Grant Project
Narragansett Bay Commission
Progress Report - 7
April 1, 2010 – June 30, 2010**

Project Title: Sustainable Energy Management Practices for Wastewater Treatment Facilities

Part 1 – Synopsis of Accomplishments

During the current Project Reporting Period April 1st through June 30th, 2010 the following activities took place: the Project Partners (NBC, RIDEM, URI and RIMES) and EPA continued to meet and participate on conference calls to discuss and plan activities associated with project development and implementation, an EF-EMS Roundtable Meeting was held on May 13th, nine Energy Use Audits were conducted of participating WWTFs, work continued on investigating the potential use of biodiesel glycerin as a wastewater treatment carbon source, and URI, RIDEM and NBC developed a FOG-ERP Informational Brochure.

Part 2 – Summary of Activities Accomplishments – Sixth Project Quarter

I. WWTF Energy Focused Environmental Management System Project

EF-EMS Planning

EF-EMS Steering Committee

On June 17th, 2010 members of the EF-EMS Steering met with Mr. Ken Payne of the Rhode Island Office of Energy Resources (RIOER) to discuss on-going efforts to reduce energy consumption within the State of Rhode Island's 19 Municipal Wastewater Treatment Facilities (WWTF) operations. During this meeting Mr. Payne offered to work with the EF-EMS Steering Committee to help secure \$95,000 in grant funds to pay for ½ of the Technical Assessment phase of the WWTF energy audit process (National Grid has agreed to pay the other ½ of the cost). NBC will be working with the RIOER to help secure these needed funds.

Energy Use Audits

Smithfield

On Friday, April 1, 2010, NBC's ESTA P2 Engineer attended a conference call to finalize the Smithfield POTW Scoping Study.

South Kingstown

On Wednesday, April 7, 2010, NBC's ESTA P2 Engineer and representatives from DMI visited the South Kingstown POTW to perform an energy assessment.

Quonsett Point

On Wednesday, April 21, 2010, NBC's ESTA P2 Engineer and representatives from DMI visited the Quonsett POTW to perform an energy assessment.

Newport

On Wednesday, April 28, 2010, NBC's ESTA P2 Engineer and representatives from DMI visited the Newport POTW to perform an energy assessment.

Warren

On Wednesday, May 5, 2010, NBC's ESTA P2 Engineer conducted an energy assessment at Warren WWTF with Demand Management Institute (DMI), National Grid and EPA.

East Greenwich

On Wednesday, May 12, 2010, NBC's ESTA P2 Engineer conducted an energy assessment at East Greenwich WWTF with DMI and EPA.

Bucklin Point

On Wednesday, May 19, 2010, NBC's ESTA P2 Engineer conducted an energy assessment at Bucklin Point WWTF with DMI and EPA.

Jamestown

On Wednesday, May 26, 2010, NBC's ESTA P2 Engineer conducted an energy assessment at Jamestown WWTF with DMI and EPA.

Westerly WWTF

On Wednesday, June 9, 2010, NBC's ESTA P2 Engineer conducted an energy assessment at the Westerly WWTF with Demand Management Institute (DMI) and EPA.

West Warwick WWTF

On Wednesday, June 16, 2010, an ESTA P2 Engineer conducted an energy assessment at the West Warwick WWTF with Demand Management Institute (DMI) and EPA.

Newport WWTF

On Thursday, June 17, 2010, an ESTA P2 Engineer attended a teleconference on Newport WWTF's Scoping Study.

EF-EMS Roundtable Meetings

On May 13th a half-day Sustainable Energy Management Roundtable meeting was held at Save the Bay's facility in Providence. The meeting was attended by representatives from several RI WWTFs, Save-the-Bay, RIDEM, National Grid, EPA and the Atlantic States rural Water and Wastewater Association. Featured presentations included Grant Writing 101, National Grid's EPO Program, and an update on EF-EMS Project activities.

**Hydroelectric Renewable Energy Applications**

On Wednesday, May 19, 2010, NBC's ESTA P2 Engineer attended a meeting at the Cranston WWTF with Waterline Industries regarding the potential use of renewable hydroelectric power.

II. FOG Environmental Results Program Project

Biodiesel/Glycerin

In response to a request from the NBC's Bucklin Point (BP) WWTF, investigations were initiated into the feasibility of shipping a glycerin by-product from the production of biodiesel to the BP WWTF for use as a carbon source within the BNR process. Efforts associated with this project conducted during this reporting period include:

On April 6th, 2010 NBC's ESTA Program Manager met with the BP WWTF Assistant Manager to discuss developing an SOP for acceptance and use of glycerin in the BNR process.

On Thursday, April 8, 2010, NBC staff met with RIDEM on glycerin as a carbon source.

On Wednesday April 28th, 2010 NBC staff met with RIDEM representatives to discuss issues regarding the acceptance and use of glycerin, generated as by-product of a biodiesel manufacturing process, as a source of carbon within the Bucklin Point WWTF de-nitrification process. As a result of this meeting NBC will supply RIDEM with a process description of the biodiesel manufacturing process and RIDEM will identify further testing parameters to be performed on the glycerin.

Part 3 – Projection of Activities, Accomplishments, and Major Expenditures for Next Quarter Report

I. WWTF Energy Focused Environmental Management System Project

- A site visit of the Falmouth MA Wind turbine by the EF-EMS Roundtable members is scheduled for September 23rd, 2010
- A Roundtable Meeting is being planned for scheduled for October, 2010
- Continue with Energy Use Assessments in cooperation with National Grid

II. FOG Environmental Results Program Project

- FOG-ERP scheduled meeting the RI Hospitality Association
- FOG-ERP Steering Committee – Form Steering Committee and schedule first meeting
- ERP Certification – Finalize Workbook and Certification procedures

Part 4 – Financial Report

A summary of grant related expenses to-date is as follows:

	Salary	Fringe	Non-Classified Limited	Total Personnel	Operating	Travel	Overhead Expenses	Match Funds	Grant Funds
NBC	\$64,516	\$35,484		\$100,000				\$50,000	\$50,000.00
RIDEM									\$0.00
RIMES				\$14,850					\$14,850.00
URI	\$102,835.03	\$23,364.90	\$11,411	\$137,611.32	\$70.00	\$1,951.53	\$35,367.17	\$33,512	\$175,000.02
Total:				\$252,461.32	\$70.00	\$1,951.53	\$35,367.17	\$83,511.88	\$239,850.02

Attachments:

1. Project Milestone Summary Table
2. May 2010 Roundtable Agenda